

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): ~~Process~~ A process for desulfurization of a hydrocarbon-containing feedstock ~~that comprises~~ comprising at least the following stages:

- a) a selective hydrogenation of diolefins ~~that are~~ present in said initial hydrocarbon feedstock in the presence of a catalyst ~~of~~ comprising a metal of group VIII of the periodic table, in the presence of an amount of hydrogen that slightly exceeds the stoichiometric value ~~that is~~ necessary for hydrogenating all of said diolefins,
- b) an extraction by a suitable solvent of said hydrogenated fraction under conditions ~~that make it possible~~ so as to obtain at least two fractions:
  - a raffinate ~~that comprises~~ comprising for the most part olefins, paraffins and naphthenes and a reduced amount of sulfur-containing compounds that are contained in the initial feedstock,
  - a fraction that contains the majority of aromatic hydrocarbons and the majority of the sulfur-containing compounds ~~that are~~ contained in the initial feedstock.

Claim 2 (currently amended): ~~Process~~ A process according to claim 1, in which the molar ratio between the hydrogen and the diolefins in stage a) is between 1 and 10.

Claim 3 (currently amended): ~~Process~~ A process according to ~~one of the preceding claims claim~~ 1, in which said group VIII catalyst comprises at least one metal ~~that is~~ selected from the group that consists of platinum, palladium, and nickel.

Claim 4 (currently amended): ~~Process~~ A process according to claim 3, in which said catalyst also comprises at least one metal of group VIB of the periodic table.

Claim 5 (currently amended): ~~Process~~ A process according to claim 4, ~~in which the further~~ comprising treating said fraction that contains the majority of the sulfur-containing compounds is ~~treated~~ in a hydrodesulfurization unit.

Claim 6 (currently amended): ~~Process~~ A process according to ~~one of the preceding claims claim~~ 1, in which said selective hydrogenation ~~is used~~ conducted under a pressure of about 0.4 to 5 MPa, at a temperature of between about 50 and 300°C, with an hourly volumetric flow rate of the feedstock of between about 1 h<sup>-1</sup> and 12 h<sup>-1</sup>.

Claim 7 (currently amended): ~~Process~~ A process according to ~~one of the preceding claims claim~~ 1, in which said extraction is ~~selected from the group that consists of~~ with a solvent is at least one of an extractive distillations distillation and a liquid-liquid extractions extraction.

Claim 8 (currently amended): ~~Process~~ A process according to ~~one of the preceding claims claim~~ 1, in which said solvent is a compound or a mixture of compounds selected from the group that

consists of the following compounds: sulfolane, 3-methylsulfolane, 2,4-dimethylsulfolane, 3-methylsulfolane, 3-ethylsulfolane, N-methyl pyrrolidone, 2-pyrrolidone, N-ethyl-pyrrolidone, N-propyl-pyrrolidone, N-formyl-morpholine, dimethylsulfone, diethylsulfone, methylethylsulfone, dipropylsulfone, dibutylsulfone, tetraethylene glycol, triethylene glycol, dimethylene glycol, ethylene glycol, ethylene carbonate, and propylene carbonate.

Claim 9 (currently amended): ~~Use of the process according to one of claims 1 to 8 for the treatment of gasolines that are~~ A process according to claim 1, wherein the hydrocarbon feedstock comprises a gasoline obtained from fluidized-bed catalytic cracking (FCC), steam-cracking, coking, or visbreaking or a mixing of gasolines obtained from these processes stages or a mixture of said stages.

Claim 10 (currently amended): ~~Use of the~~ A process according to one of claims 1 to 8 for the treatment of gasolines claim 1, wherein the hydrocarbon feedstock is a gasoline with a higher upper boiling point of less than 220°C.

Claim 11 (new): A process according to claim 9, wherein the gasoline is from said FCC stage.

Claim 12 (new): A process according to claim 7, wherein the extraction is conducted by extractive distillation, the hydrocarbon feedstock is an FCC gasoline and the solvent is selected from the group consisting of sulfolane, 3-methylsulfolane, N-formyl morpholine, 2-pyrrolidone, dipropylsulfone and tetraethylene glycol.

Claim 13 (new): A process according to claim 4, wherein the gasoline is from said FCC stage.

Claim 14 (new): A process according to claim 13, further comprising treating said fraction that contains the majority of the sulfur-containing compounds in a hydrodesulfurization unit.